P.S.—Since this memoir was read, Dr. Klug has published a new part of the "Symbolæ Physicæ," in which he has figured a minute insect from Abyssinia, closely allied to the one above described, under the name of *Corythoderus loripes* (Pl. XLII. fig. 11, and our Pl. XVII. fig. 7). It differs however from Captain Boys' insect, not only in the form of its feet, but also in the sulcation of its prothorax and elytra. Dr. Klug has unfortunately omitted to describe the trophi, the specimen being unique.

XXXVIII. Descriptions of various exotic Heteropterous Hemiptera. By J. O. WESTWOOD, F.L.S., &c.

(Continued from Vol. II. pp. 24, 253; Vol. III. p. 31; and Vol. IV. p. 122.)

[Read 7th October, 1844, &c.]

PLATASPIS BUCEPHALUS, White. (Entomologist, p. 136.)

(Pl. XVIII. fig. 1.)

As the specimen of this remarkable insect, described by Mr. White, was mutilated, I beg leave to present to the Entomological Society a figure and details drawn from a perfect specimen recently received by the Reverend F. W. Hope, in a collection of insects forwarded to him from Cape Palmas by Mr. Savage.

This specimen (as well as evidently that described by Mr. White) is a male, possessing the broad head with corniform appendages (so commonly indicative of that sex), a scutellum emarginate at its tip when seen from behind, and the exserted sexual apparatus, concave on its lower surface except at the base, of the male. I am the more particular in determining the sex of this specimen, as either the sexual distinctions in this genus have been regarded as sectional, or the sexes have been transposed in some recent works on the *Hemiptera*. Of the identity of the sex there can be no question, since, independent of the enlarged size and dilated or cornuted structure of the head of the males, I have extracted the ova from the abdomen of a specimen of an allied species, having the scutellum destitute of the emargination, and the sexual apparatus agreeing with the figures which I have given as those of he female in my paper on this genus in "Charlesworth's Mag. of Nat. Hist.," January, 1838, figs. ii. 5, and iii. 9.

The space between the ocelli is considerably shorter than that between the ocelli and the eyes; the promuscis extends to the base of the second pair of legs, it is slender and 4-jointed, the first and fourth joints the shortest, and the second and third longer, being nearly of equal length.

The first, second, third and fourth ventral segments have a long impressed line on each side, terminating near the margin of the abdomen in a small dot, which might be mistaken for a spiracle, but the true spiracles are present and placed rather in advance of this dot and somewhat nearer to the median line of the body: the fifth segment, which is very much angulated in the middle, has also a short impressed line on each side, but this terminates in the true spiracle, whilst a little in advance of it is a much larger oval patch of short decumbent hairs.

The legs are short and compressed, the tibiæ are especially short, being scarcely longer than the tarsi. The insect is, however, unable to fold up its feet in the same way as the *Histeridæ* as suggested by Mr. White, because there are no impressions on the under surface of the body in which the four hind feet could be lodged.

The insect is nearest allied to *Plataspis coccinelloides* and *coracina*, (to the first of which Messrs. Serville and Amyot restrict the name of *Thyrcocoris*, giving the name of *Heterocrates* to the second,) in consequence of having the ocelli placed very close together. In comparison with these insects, and in respect to the characters which Messrs. Serville and Amyot have employed for their genera, the present insect must be considered as a separate genus, and it is therefore proper to add that Mr. White has himself applied the subgeneric name of *Ceratocoris* to it in the Index of Addenda and Corrigenda at the end of the "Entomologist."

Plate XVIII. fig. 1, the insect slightly magnified; 1 a, the insect of the natural size seen sideways; 1 b, antenna; 1 c, fore foot; 1 d, extremity of the abdomen seen from above; 1 e, underside of the abdomen.

Plataspis (Aphanopneuma) biloba. (Pl. XVIII. fig. 2.)

Supra obscure lutea, nitida, depressa, subparellela, undique nigroguttulata, guttulis punctatis; spatio magno bilobo fulvescenti

ad basin scutelli, capite & in lobos duos magnos conicos convergentes producto.

- Long. corp. lin. 7.
- Habitat in Africa tropical. occident. D. Savage.
- In Mus. D. Hope.

This insect differs from the other species of this and the adjacent subgenera, which have the ocelli more close together than the distance between them and the eyes, in the more parallel form of the depressed body, in the conical form of the porrected head, and the nearly straight sides of the prothorax; whilst from Heterocrates coracina it differs in having the promuscis extending only to the base of the hind legs, with four joints, the first and fourth joints shortest and the second and third longer and nearly of equal length. But the most curious character is the hidden position of the spiracles; there is, indeed, along the lateral margins of the ventral surface of the abdomen, on each side, a lateral row of minute pale spots on the black disc, each of which presents in the centre a little black dot, which at first sight appears like one of the real spiracles; but the latter are quite lateral and placed within the very narrow membranous fold which unites the dorsal and ventral surfaces of the abdomen. It is from this character that I have given the subgeneric name used above. The antennæ in the only specimen which I have seen have only three joints, (not including the radicle between the first and second,) but it is probable that the fourth joint has been broken off; the basal joint is pale luteous, the remainder black. The feet are much more slender than in Ph. Bucephalus. The abdomen beneath is very flat and highly polished and black; the femora and tibiæ are luteous; the wings are of a black brown colour, and of the ordinary structure of the . genus.

Plate XVIII. fig. 2, the insect slightly magnified; 2*a*, antenna, with the presumed terminal joint indicated by dots; 2*b*, apex of the abdomen seen from above; 2*c*, underside of the abdomen.

Plataspis (Cantharodes) cænosa, Westw. (Pl. XVIII. fig. 3.)

Supra obscura, sublutescens, opaca, nigro-punctatissima; scutello fasciâ indistinctâ medianâ subpallidiori; capite magno, subconcavo, postice in collum angustato; prothorace antice valde emarginato, lateribus rotundatis, in medio parum angulatis; pedibus subgracilibus.

Long. corp. lin. 8.

Habitat Cape Palmas, Africæ tropic. occid. D. Savage. In Mus. Hope, Westw.

'Mr. J. O. Westwood's Descriptions

This is the largest species of this group of Scutelleridæ hitherto detected, and which, in the comparative proximity of the ocelli, enters into Serville and Amyot's first division of the group, subfamily or genus. From the other subgenera it differs in the broad subdepressed form, with the head prominent, nearly semicircular, subconcave above, with a depressed mesial line terminating in a bifid impression, and with the hind part of the head considerably elongated, forming a kind of neck, which is received in the deep emargination of the front of the prothorax. The antennæ are 4-jointed, exclusive of the radicle between the first and second joints; the promuscis extends to between the middle feet; the body above is destitute of gloss, with the front half of the prothorax elevated into four slight bosses; the sides are nearly rounded, but with a slight angulation in the middle; the base of the scutellum is transversely raised in the middle, giving the appearance of a distinct very broad short scutellum; across the middle of the scutellum extends a paler very obsolete fascia, and beyond this are two short nearly obsolete transverse paler streaks. The feet are comparatively slender; the abdomen beneath is not flat, but has a longitudinally central raised part; the spiracles are distinct at the sides of the abdomen within the lateral margins of its ventral surface. The appearance of the anal portion is represented in the figure, which leads me to infer that the specimen before me is a male. As this species will not enter any of the subgenera Thyreocoris, as restricted by Serville and Amyot, Heterocrates, Ceratocoris or Aphanopneuma, I have been obliged to form it into a separate subgenus, which, from the resemblance of the insect to certain Heteromerous beetles. I have named Cantharodes.

Plate XVIII. fig. 3, the insect slightly magnified; 3a, extremity of the abdomen; 3b, underside of abdomen.

EUMENOTES, Westr.

Corpus depressum, oblongum. Caput latum, antice cornubus duobus planis truncatis, alterisque duobus ante oculos armatum. Antennæ satis crassæ, 4-articulatæ; articulo 2ndo reliquis longiori, 4to ovali præcedenti parum breviori. Promuseis ad pedes posticos extensa, 4-articulata, articulo 2ndo reliquis longiori, alteris tribus longitudine æqualibus. Prothorax antice lateribus rectis, haud capite latior, postice utrinque in angulum parum productus. Hemelytrorum corium vena furcata instructum, membrana multi-areolata, marginibus abdominis haud tegentia. Pedes simplices.

of various exotic Heteropterous Hemiptera. 247

This genus comes very close to Amaurus, Burm. (Platydius, Westw. Zool. Journ.; Mcgymenum, Guér.; Corydius, De Haan,) in all its more essential characters, but differs entirely in the form of the head and thorax, and in the antennæ not being dilated as in this genus. Unfortunately the locality of the only known individual of the genus is unknown.

Sp. unica. Eumenotes obscura, Westw. (Pl. XVIII. fig. 4.)

Obscure brunnea, punctata, apice scutelli rufescenti, membrana apicali hemelytrorum nigricanti, pronoti margine postico transverso deflexo, abdominis lateribus subserratis.

Long. corp. lin. 4. Habitat ———?

In Mus. Britann.

Plate XVIII. fig. 4, the insect magnified ; 4a, promuscis.

Epirodera,* Westw.

Genus novum Enicoccphalo Westw. affine. Caput parvum. quasi bipartitum, colloque brevi postice instructum. Nasus brevis, porrectus, apice rotundato; parte postica subglobosa antice et postice constricta, ocellos duos gerente. Antennæ capite dimidio longiores, graciles, 4-articulatæ; articulo 2ndo longiori, ultimo elongato, ovali, vix precedenti tenuiori. Promuscis fere capitis longitudine libera, 3-articulata, articulo intermedio multo longiori. Prothorax latissimus, angulis anticis lateralibus porrectis, lateribus inflato-rotundatis, pone medium constrictum, margineque postico bituberculato. Scutellum parvum, triangulare. Hemelytra abdomen fere tegentia corio parvo, membrana apicale maxima, area magna media venis 4 ad margines emissis. Abdomen oblongum, valde deplanatum parallelum, apice rotundato. Pedes breves, satis crassi; femoribus crassis, subtus serratis.

This genus is one of those small forms amongst the *Reduviidæ* which possess the appearance of the *Aradi*, and have the antennæ not attenuated at the tips. The rostrum is however free, and the veining of the hemelytral membrane very similar to that of *Enicocephalus* and *Holoptilus*. Another group allied to these

^{*} At the suggestion of Mr. A. White (to whom this paper was referred by the Publication Committee) the name of *Physoderes* given to this genus, as printed in the Journal of Proceedings, has been altered, as being too near to *Physodera*, a subgenus separated from *Lebia*,—J. O. W.

insects from Van Diemen's Land has recently been characterized by Dr. Erichson under the name of *Isodermus*, in which the hemelytra are destitute of veins.

Epirodera notata, Westw. (Pl. XVIII. fig. 5.)

Obscure brunneo-fulvescens, pronoto in medio partis anticæ lineis duabus latis parallelis notisque tribus lateralibus obscuris; hemelytris corpore concoloribus membrana fusca abdominibus lateribus detectis, nigro flavoque alternatim coloratis, capitis parte postica obscura; alis posticis fulvis, pronoto subtus concolori nigro vario.

Long. corp. lin. $4\frac{1}{2}$.

Habitat ——?

In Mus. Britann.

Plate XVIII. fig. 5, the insect magnified; 5 a, the head seen sideways.

STENOTOMA, Westw.

Genus novum inter Coreidas Heteropterorum locandum. Caput subtriangulare, lobo antico subconico et ad apicem acute bispinoso, spinis duabus ante oculos porrectis alterisque duabus ad latera capitis locatis. Oculi magni; ocelli 2 minuti ad marginem anticum pronoti approximati; promuscis 4-articulata, gracilis, ad basin pedum posticorum extensa, articulo 1mo in canali infero capitis recepto, 2ndo reliquis paullo longiori. Antennæ 4-articulatæ, dimidium corporis longitudine superantes, articulo basali brevi, 2ndo clavato setoso, 3tio ovali lato, 4to ovali-oblongo, præcedenti minori et parum breviori. Pronotum lateribus pone medium angulatis, marginibus spinosis, parte postica vix elevata. Scutellum elongatum, postice attenuatum, subcarinatum. Hemelytra abdominis longitudine corio nunctato, areola transversa ad basin membranæ apicalis venas 4 longitudinales emittenti, vena altera margine laterali parallela. Pedes breves graciles, tarsis 3-articulatis, articulo intermedio minuto. Abdomen hemelytris tectum, angulis posticis lateralibus segmentorum acutis.

The name of this genus is derived from the very slender thread-like connexions between the second and third, and third and fourth joints of the antennæ; these are not noticed in the above description; if included they would, together with the

minute radicle connecting the basal joint with the head, raise the number of joints in the antennæ to seven.

Sp. 1. Stenotoma Desjardinsii, Westw. (Pl. XVIII. fig. 6.)

Lutea, fulvo-parum-variegata, undique fusco-punctata, antennis fuscis, abdominis lateribus fusco et albido alternatim maculatis.

Long. corp. lin. 3.

Habitat in insula Mauritii. D. Desjardins et Templeton.

In Mus. nostr.

(An. Phricodus hystrix,* Spinola in Guér. Mag. Zool. 1840.)

This curious insect is named in honour of its discoverer, the late Julien Desjardins, whose exertions in the cause of science in the distant island of Mauritius merit far greater respect than can be shown by this feeble mark of recognition.

One of my specimens is curiously deformed in one of its antennæ, as represented in the accompanying sketch, the two apical joints being soldered together, and the preceding joint more elongated than in the opposite antenna, as though to make up for the deficiency in the number of joints.

* P.S. I have added this citation at the suggestion of Mr. A. White. The insect described by the Marquis Spinola is however stated to be a native of the Cape of Good Hope, and is arranged both by him and by M. Germar (in the Rev. Entomol. de Silberman, tom. v. p. 134, No. 34) as one of the Aradites, the antennæ being described as 4-jointed, the first extremely minute and basal, the second small and pear-shaped, the third long and clavate, and the fourth very minute and setaceous. Upon this mode of computation the left hand antennæ of the insect above described by me must be considered as having seven joints. The learned Marquis has moreover represented his insect as not possessed of two ocelli, nor as having the closed cell at the base of the membranaceous part of the hemelytra. The head moreover in my insect does not exhibit the two deep circular impressions between the eyes, seen in M. Spinola's figure of *Phricodus hystrix*.